Section 170—Silt Retention Barrier

170.1 General Description

This work includes controlling water pollution where embankment construction or material removal may cause stream pollution.

Requirements of Sections 161, 162, and 163 apply to this Item. However, payment will not be made for erosion control items in those sections used with this work.

170.1.01 Definitions

General Provisions 101 through 150.

170.1.02 Related References

A. Standard Specifications

Section 161—Control of Soil Erosion and Sedimentation

Section 162—Erosion Control Check Dams

Section 163—Miscellaneous Erosion Control Items

Section 171—Temporary Silt Fence

B. Referenced Documents

General Provisions 101 through 150.

170.1.03 Submittals

General Provisions 101 through 150.

170.2 Materials

Use suitable permeable or impermeable materials. These materials include canvas duck, clear or black polyethelyne film, or fabric that meets the requirements of Type C, temporary silt fence, found in Section 171.

Alternate solutions and materials may be used if Engineer approves.

Use barriers long enough and wide enough to control turbidity.

170.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

170.3 Construction Requirements

170.3.01 Personnel

General Provisions 101 through 150.

170.3.02 Equipment

General Provisions 101 through 150.

170.3.03 Preparation

General Provisions 101 through 150.

170.3.04 Fabrication

General Provisions 101 through 150.

170.3.05 Construction

Install a silt retention barrier as follows:

1. Confine dredged materials to ponding areas or settlement basins using standpipes or weirs.
2. Place the barrier approximately 25 ft (7.5 m) outside the affected construction area, and at a depth within 5 ft (1.5 m) of the bottom.
3. If the body of water has a significant current, place the barrier parallel to the water flow. Ensure that the fabric is permeable. In smaller streams, place the barrier close to the construction area.
4. Vary the dimensions and methods to suit the conditions and to meet the requirements of other local and State water control agencies to ensure that silt dispersion is effectively controlled.
5. Barriers shall be either staked or floating depending upon current, tides, water depth, and other variables.

   If a staked barrier is used to protect a stream being relocated or widened, ensure that the fabric:

   - Extends to the bottom of the stream and is weighted to prevent it from floating
   - Is permeable and not trenched in at the bottom
   - Extends 2 ft (600 mm) above normal water from the top of the fabric

170.3.06 Quality Acceptance

General Provisions 101 through 150.

170.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

170.4 Measurement

Silt retention barriers, either floating or staked, are measured by the linear foot (meter) of barrier required to prevent siltation and pollution.

170.4.01 Limits

General Provisions 101 through 150.

170.5 Payment

The applicable requirements of Sections 161, 162, and 163 apply to this Item, except that the erosion control items contained in those sections will not be paid for when used in conjunction with this work.

Silt retention barriers will be paid for at the Contract Unit Price for each barrier, complete in place and accepted. Payment is full compensation for furnishing materials, erecting the barrier, removing, and disposing of the barrier when no longer required.

Payment will be made under:

Item No. 170	Floating silt retention barrier	Per linear foot (meter)
Item No. 170	Staked silt retention barrier	Per linear foot (meter)

170.5.01 Adjustments

General Provisions 101 through 150.